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Citation for final published version:

Panagoulas, Eleni ORCID: <https://orcid.org/0000-0001-5920-1024> 2017. Four steps to a successful original research article. The British Student Doctor Journal 1 (1), pp. 7-8. 10.18573/j.2017.10125 file

Publishers page: <http://dx.doi.org/10.18573/j.2017.10125>
<<http://dx.doi.org/10.18573/j.2017.10125>>

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Guest Editorial

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No conflicts of interest to declare

FOUR STEPS TO A SUCCESSFUL ORIGINAL RESEARCH ARTICLE

The importance of research and publication during your undergraduate years at medical school has been highlighted many times, after all many important discoveries such as insulin have actually been made with the help of undergraduate medical students. (1) Furthermore, getting involved in research from the early stages in your career shapes a positive attitude towards academia, and allows individuals to make more informed career choices. (2) Therefore, it is important to challenge yourself and put pen to paper, and not let anything sit in the draw. A great amount of satisfaction will result from it, and by following some systematic steps, success will soon follow.

Thousands of articles get submitted every day to journals, and never make it past the peer review process, this can be due to a multitude of reasons, but it is important to be aware of certain requirements in order to give your manuscript the best possible chance at getting published. *The British Student Doctor* aims to give students the opportunity to start their publication careers, and through the following advice in this article, I will discuss the process of submitting an original research article.

Originality

Original research is about what it says on the tin. The work needs to be an innovative study in any aspect of clinical medicine, biomedical science or medical education. The research could range from experimental lab based work to a systematic review and meta-analysis; any established methodology is acceptable. Original research also includes revisiting topics, but providing a new perspective, or researching something which has already been published, but from a new angle. Students are often involved in very interesting research, but due to multiple reasons, which include a lack of publication experience or producing research with a smaller nature and narrower scope, this research ends up never being published.

Ethical and professional

It is pertinent that all research has proper ethical approval from the relevant regulating bodies. However, though it may be obvious when a study requires ethical approval, there are subtleties when conducting research. If in doubt, it is always possible to speak to your local ethics committee.

It is also important to uphold a professional manner. When submitting a piece of research, it is vital that all parties that were involved in the research are informed. This includes, first and foremost, your supervisor, who needs to give full consent for you to publish the research. Furthermore, anyone who has worked with you and advised you needs to be acknowledged, and considering how much their involvement was, perhaps they may even merit inclusion as an author. This, for example, could be a PhD student who taught you a technique or proof-read your work, whose contribution should be acknowledged at the end of the paper. Additionally, studies that are a part of a collaboration, or constitute the first stage of a multistage trial, also require the full consent from whoever is responsible for overseeing the study. Remember, just because you did all the footwork for a study, this does not make the data exclusively yours. It also goes without saying that if you use anyone else's data, then their consent needs to be gained, and they should be included as an author.

During the publication process, you will often be in contact with different parts of the editorial team, and you will also receive feedback from at least two peer reviewers. It is important to always maintain a courteous manner in your communications. Often, receiving criticism can be challenging, but you must remember that reviewers put in the effort to review your work out of genuine interest and good will, and they are not paid to do so. Therefore, their time and effort needs to be appreciated.

Transparent

Research is often difficult, requiring many hours sacrificed staring into a microscope or critically appraising countless articles or analysing patient notes. So it is not surprising that cutting corners would seem like a solution. However, the scientific community relies on the transparency and probity of the researcher. This is why papers undergo a stringent peer review process to ensure that only the highest quality of data is published. Furthermore, deliberately trying to mislead the reader is unethical, and if this is discovered, it may lead to serious professional consequences for the author.

Well written

Think of your audience and try to draw them in. Research does not have to be displayed in a dry manner. Please do read the author guidelines. Submitting a piece of work without having read and followed the author guidelines is like setting off on a road trip without a map or destination. It sounds like fun, but you will get lost, or in this case your article will be rejected. Furthermore, it is important that your manuscript follows a standard set order, and this is usual for most research journals. The background usually places your research into the context of what the current literature says, and ends with your aims and hypotheses. Methods need to be detailed, outlining the relevant steps taken, as well as the statistical tests or programs used to analyse the data. The results section is a platform to display your results, and it is important not to start analysing or explaining results at this stage, only simply stating them in an objective manner. In the discussion, you must consider the clinical implications of your results, and analyse the strengths and limitations of your study. It is also informative to include directions for future research. Lastly, proofread your manuscript very carefully, and ideally have a fresh pair of eyes to look over it before submission. Having many spelling and grammatical errors will put your editor in a bad mood, and detract from your overall manuscript.

Starting off may seem like a daunting task, therefore it is easier to break things down into manageable chunks and to work consistently at your manuscript. Furthermore, there are online resources that can help you. (3) At *The British Student Doctor*, to help streamline the submission process and aid future authors, we have created a pre-submission checklist, which is included as part of the copyright agreement, and needs to be completed and submitted alongside the manuscript.

Good luck with your research and publication endeavours.

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Journal DOI

10.18573/issn.2514-3174

Issue DOI

10.18573/n.2017.10117

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